

RIGBY TAYLOR LTD

PRODUCT SAFETY DATA SHEET: CROSSFIRE 480 EC INSECTICIDE

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Marketed By: RIGBY TAYLOR LTD RIGBY TAYLOR HOUSE CROWN LANE HORWICH BOLTON BL6 5HP Tel: 01204 677777 Fax: 01204 677715	Manufactured by: DOW AGROSCIENCES LIMITED LATCHMORE COURT BRAND STREET HITCHIN HERTS SG5 1NH Emergency Telephone Number: +44 (0) 1553 761 251
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Product Name: CROSSFIRE* 480 INSECTICIDE MAPP 12516 (PCS 92050)

LV70: 10327 Issue date: Aug 01 Ref: HEW19

Revised: Aug. 09 (Sections (s) 3, 4, 8, 11, 14-16)
For questions about this SDS, contact: SDSQuestion@dow.com

2. HAZARDS IDENTIFICATION

Flammable. Harmful by inhalation and if swallowed. Irritating to eyes, respiratory system and skin. Harmful: may cause lung damage if swallowed. Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS:

Dangerous components (see section 16 for complete R-phrases):

	Concentration		CAS	EC No
Chlorpyrifos	44.5%	T; R25, N; R50/53	002921-88-2	220-864-4
Solvent naphtha (petroleum), light aromatic	40-50%	Xn; N; R10-37- R51/53-65-66-67	64742-95-6	265-199-0
Solvent naphtha (petroleum), heavy aromatic	<5%	Xn; N; R51/53- 65-66-67	64742-94-5	265-198-5
1,2,4-trimethyl benzene	>10 <20%	R10; Xn: R20; Xi; R36/37/38; N: R51/53	00095-63-6	202-436-9
Cumene	<5%	R10; Xn: R65; Xi: R37; N: R51/53	00098-82-8	202-704-5

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3. COMPOSITION/INFORMATION ON INGREDIENTS: contd

	Concentration		CAS	EC No
1,3,5-trimethyl benzene	<5%	R10; Xi: 37; N: R51/53	00108-67-8	203-604-4
Calcium Dodecylbenzene- sulphonate	<5%	Xi; R38-41	26264-06-2	247-557-8
Inert ingredients	Balance			
Composition Code	EF1551			

4. FIRST AID MEASURES:

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by a physician.

Eye Contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Eye wash fountain should be located in immediate work area.

Skin Contact: Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing before re-use. Safety shower should be located in immediate work area.

Inhalation: Remove to fresh air. Consult a physician.

Note to Physician: This material contains both a cholinesterase inhibitor and a solvent. Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PA M/protopam, may be therapeutic if used early; however, use only in conjunction with atropine. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

Emergency Personnel Protection: if potential for exposure exists refer to Section 8 for specific personal protective equipment. First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection).

5. FIRE FIGHTING MEASURES:

Extinguishing Media: Water fog or fine spray. Carbon dioxide. Dry chemical powder. Foam.

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products include: Hydrogen chloride. Sulphur oxides. Nitrogen oxides.

Protection of fire fighters: Wear protective clothing and use self-contained breathing apparatus.

Additional Information: Rapid decomposition occurs above 160 deg. C. Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

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6. ACCIDENTAL RELEASE MEASURES:

Personal Precautions: Wear appropriate safety clothing and eye/face protection (see Section 8).

Environmental Precautions: Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water or drainage system.

Methods of Cleaning Up: Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

Additional Information: Eliminate all ignition sources.

7. HANDLING & STORAGE:

Handling: Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid eye and skin contact.

Storage: Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines:

Chlorpyrifos: Dow AgroSciences IHG is 0.1 mg/m³ (skin).

Solvent naphtha (petroleum), light aromatic: Supplier recommendation for solvent is 100 mg/m³

Solvent naphtha (petroleum), heavy aromatic: Supplier recommendation for solvent is 100 mg/m³

Cumene: EU threshold limit is 100 mg/m³. STEL is 250 mg/m³. STEL is 50ppm. Skin designation applies.

1,2,4-trimethylbenzene: Threshold Limit Value (TLV) is 100 mg/m³, 20ppm.

1,3,5-trimethylbenzene: Threshold Limit Value (TLV) is 100 mg/m³, 20ppm.

UK:

Chlorpyrifos:

Time-weighted average (TWA) is 0.2 mg/m³.

Short-term exposure limit (STEL) is 0.6 mg/m³.

Can Be Absorbed Through Skin.

1,2,4-trimethyl-benzene, generics group name: trimethylbenzenes, all isomers or mixtures

Time-weighted average (TWA) is 125 mg/m³ (25ppm).

Cumene:

Time-weighted average (TWA) is 125 mg/m³ (25ppm).

Short-term exposure limit (STEL) is 250 mg/m³ 50ppm.

Can Be Absorbed Through Skin.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION contd

IRELAND:

Chlorpyrifos:

Irish 8-hour OEL Time-weighted average (TWA) is 0.2 mg/m³.

Irish 15-minute OEL Short-term exposure limit (STEL) is 0.6 mg/m³.

Irish skin designation (has capacity to penetrate intact skin on contact and be absorbed into the body).

1,2,4-TRIMETHYLBENZENE

Irish 8-hour OEL Time-weighted average (TWA) is 100 mg/m³ (20ppm).

Cumene:

Irish 8-hour OEL Time-weighted average (TWA) is 100 mg/m³ (50ppm).

Irish 15-minute OEL Short-term exposure limit (STEL) is 250 mg/m³.

Irish skin designation (has capacity to penetrate intact skin on contact and be absorbed into the body).

Engineering Controls:

Good general ventilation should be sufficient for most conditions.

Local exhaust ventilation may be necessary for some operations.

Respiratory Protection:

When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator.

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Hand/Skin Protection:

For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. Use chemical resistant gloves classified under standard EN 374:

Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Nitrile. Polyvinyl chloride ("PVC" or "vinyl"). Neoprene.

Avoid gloves made of: Natural rubber ("latex").

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.

When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION contd

Hand / Skin Protection contd

When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

Gloves classified under standard EN 374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Nitrile. Polyvinyl chloride ("PVC" or "vinyl"). Neoprene.

Avoid gloves made of: Natural rubber ("latex").

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.

When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all requisite workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), as well as the instructions/specifications provided by the glove supplier.

When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

Eye/Face Protection: Use safety glasses. Where contact with the liquid is likely, chemical goggles are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: clear liquid

Colour: pale yellow

Relative Density (water=1): 1.07 g/cm³ (approx).

Water Solubility: emulsifiable

Flash Point: 53.5 deg. C (PMCC)

Explosive properties: not explosive

Surface tension: 30.5 mN/m (25 deg. C)

Oxidising properties: non-oxidising

Autoflammability: > 400 deg. C (EEC: A15 METHOD)

pH: 7.0 (1% aqueous sol.)

Kinematic viscosity: 2.22 mm²/s (40 deg. C)

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10. STABILITY AND REACTIVITY:

Chemical Stability: Is stable under normal storage conditions.

Conditions to avoid: Avoid extremes of temperature. Chlorpyrifos: Rapid decomposition occurs above 160 deg. C. Product undergoes exothermic decomposition which can lead to high temperatures and violent decomposition if heat developed is not removed.

Materials to avoid: Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products: None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION:

Ingestion: Moderate toxicity if swallowed. The oral LD₅₀ for rats is 300<500 mg/kg.

Skin Contact: The dermal LD₅₀ for rabbits is >2000 mg/kg. Prolonged skin contact is unlikely to result in absorption of harmful amounts. Short single exposure may cause skin irritation.

Sensitisation: Non-sensitising to guinea pig skin.

Eye Contact: May cause moderate eye irritation.

Inhalation: Harmful by inhalation. No adverse effects anticipated by this route of exposure incidental to proper handling.

Other information:

Excessive exposure may cause organophosphate type cholinesterase inhibition.

Not classified as: Carcinogenic. Mutagenic. Toxic for reproduction.

12. ECOLOGICAL INFORMATION

Persistence and Degradability:

Assessment largely or completely based on data for active ingredient. Does not leach in soils and is therefore unlikely to contaminate ground water. Half-life in soils is dependent on soil type and conditions and is approximately 2-34 days.

Aquatic toxicity: Based on data for the formulation.

Material is very toxic to fish on an acute basis (LC₅₀<1mg/L).

Material is very toxic to aquatic invertebrates on an acute basis (EC₅₀<1mg/L).

Material is toxic to algae (1mg/L < IC₅₀ <10 mg/l).

Avian toxicity: Based on data for similar formulation.

Material is slightly toxic to birds on an acute basis (500mg/kg <LD₅₀ < 2000mg/kg).

Other information: Based on data for similar formulation.

Highly toxic to bees. LD₅₀ for earthworms is 313mg/kg.

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13. DISPOSAL CONSIDERATIONS:

Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

14. TRANSPORT INFORMATION

ROAD & RAIL:

Proper shipping name: ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, (Chlorpyrifos and Aromatic Hydrocarbon).

Truck/Rail ADR/RID: 6.1 **Label:** 6.1 + 3

Classification Code: TF2

Packing Group: III

Kemler Code: 63 **UN number:** 3017

Tremcard Nr. CEFIC: 61GTF2III

SEA:

Proper shipping name: ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, (Chlorpyrifos and Aromatic Hydrocarbon).

Sea – IMO/IMDG Class: 6.1 **UN number:** 3017 **Label:** 6 + 3

Packing Group: III **EMS:** F-E, S-D

Marine Pollutant: Y (Y/N)

AIR:

Proper shipping name: ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE, (Chlorpyrifos and Aromatic Hydrocarbon).

Air –ICAO/IATA Class: 6.1 **UN number:** 3017 **Label:** 6.1 + 3

Sub Class: 3

Packaging Group: III **Pack Instr. Passenger:** 611

Pack Instr. Cargo: 618

Remarks: Sample shipment not allowed by mail.

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15. REGULATORY INFORMATION

European Inventory of Existing Commercial Chemical Substances (EINECS)

The components of this product are on the EINECS inventory are exempt from inventory requirements.

Hazard Symbol:

Xn – Harmful

N – Dangerous for the Environment

Risk Phrases:

Flammable (R10)

Harmful by inhalation and if swallowed. (R20/22).

Irritating to eyes, respiratory system and skin (R36/37/38).

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment (R50/53).

Harmful: may cause lung damage if swallowed (R65).

Safety Phrases:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26).

This material and its container must be disposed of in a safe way (S35).

Wear suitable protective clothing (S36).

Use appropriate containment to avoid environmental contamination (S57).

If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label (S62).

To avoid risks to man and the environment, comply with instructions for use.

Refer to the Product Label for full local Regulatory Authority label precautions.

16. OTHER INFORMATION:

Risk-Phrases in Section 3:

R10 – Flammable.

R20 – Harmful by inhalation.

R25 – Toxic if swallowed.

R36/37/38 – irritating to eyes, respiratory system and skin.

R37 – Irritating to respiratory system.

R38 – Irritating to eyes and skin.

R41 – Risk of serious damage to eyes.

R50/53 – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 – Harmful: may cause lung damage if swallowed.

R66 – Repeated exposure may cause skin dryness or cracking.

R67 – Vapours may cause drowsiness and dizziness.

The information herein is given in good faith and to the best of our knowledge but no warranty, express or implied, is made.